

Dear Examiner Ly,

Re: USSN 09/930,698, Flam, *System and method for automated process control*, filed 8/15/01  
My docket sparta01.001

Attached to this fax is a final version of the amendment to the claims in the above application. The changes in this version have been worked through with Examiner Corrielus. Please enter it as an Examiner's Amendment. As previously stated, Applicant is making the amendment purely to obtain prompt issuance of a patent on Applicant's process control system, is not conceding that the amendment is required to render the claims patentable over the references cited thus far in the prosecution, and reserves the right to file a divisional application containing claims which have the full breadth permitted by the prior art.

Thank you for your help in expediting this process.

Respectfully submitted,

Gordon E. Nelson, #30,093  
Attorney of Record

Please "ENTER"

Thank,

my 02/28/06

1 1. (currently amended) A process control system comprising:

2 a server ~~that has~~to access to a database system and executes program code for the  
3 process control system;

4 a process record table in the database system of that contains one or more process  
5 ~~records in the database system, each the~~ process record indicating a current status of a  
6 process being controlled by the system;

7 an administrative query table in the database system that contains of one or more  
8 ~~administrative query records in the database system, each the~~ administrative query record  
9 specifying an administrative query that is associated with a query on the table of process  
10 records and with one or more administrative activities;

11 a program sequence table in the database system that contains one or more  
12 program sequence records that are associated with administrative queries, the program  
13 sequence record specifying an administrative activity, a way of determining a next  
14 program sequence record in the set, and a condition which must be satisfied before the  
15 administrative activity specified therein can be performed;

16 a log table in the database system that ~~has~~contains one or more log table records  
17 logging executions of the ~~query~~administrative queries and result sets of process records  
18 returned thereby, ~~the the~~ log table records including a next sequence pointer for a given  
19 execution of an administrative query and a given process record, the next sequence  
20 pointer specifying a next program sequence record and the log table record permitting  
21 determination whether a record belonging to a current result set returned by a current  
22 execution of a given administrative query is in one of a plurality of states; and

23 a portion of the program code which, when executed, selects one of the  
24 administrative queries for execution, executes the query associated therewith, determines  
25 which state a process record belonging to the current result set is in, ~~and, as determined~~  
26 ~~by~~if the state and the condition specified by the program sequence record so indicate,  
27 performs one of the associated administrative activities with regard to the process record,  
28 and responds when a process record is again returned by a subsequent execution of the  
29 administrative query by performing the administrative activity specified in the program  
30 sequence record specified by the next record pointer if the state of the process record and  
31 the condition specified by the program sequence record so indicate, and if the  
32 administrative activity is performed, setting the next sequence pointer as specified in the  
33 program sequence record.

2. (canceled)

1 3. (previously presented) The process control system set forth in claim 1 wherein:  
2 more than one of the administrative activities is associated with one of the states;  
3 the portion of the code can further, when executed, determine from the log table  
4 whether a record is in one of a plurality of substates of the one state; and  
5 which of the more than one of the administrative activities is performed with  
6 regard to a record belonging to the result state depends on which of a plurality of  
7 substates of the state the record is in.

4. (canceled)

1 5. (currently amended) The process control system set forth in claim 4-1 wherein:  
2 the program sequence record specifies that the next sequence pointer's value  
3 remains unchanged.

6. (canceled)

1 7. (currently amended) The process control system set forth in claim 6-1 wherein:  
2 the ~~specific~~specified condition is temporal.

1 8. (original) The process control system set forth in claim 1 wherein:  
2 the administrative activity includes one or more actions; and  
3 when the administrative activity is performed, the actions included therein are executed.

1 9. (original) The process control system set forth in claim 8 wherein:  
2 there is a plurality of different types of actions that may be included in an  
3 administrative activity.

1 10. (original) The process control system set forth in claim 9 wherein:  
2 the types of actions include actions which modify values in process records  
3 belonging to the result set when the activity in which the action is included is executed.

1 11. (original) The process control system set forth in claim 9 wherein:

2           the types of actions include actions which post a record for a process in a further  
3 table in the database system when the activity in which the action is included is executed.

1   **12. (original)** The process control system set forth in claim 9 wherein:

2           the types of actions include actions which generate a report listing the result set  
3 when the activity in which the action is included is executed.

1   **13. (original)** The process control system set forth in claim 8

2           wherein there is a plurality of administrative actions and

3 the process control system further comprises:

4           an action record table in the database system, each action record in the table  
5 representing an action associated with one of the administrative activities; and

6           when the associated administrative activity is performed, the portion of the  
7 program code executes the action records associated with the associated administrative  
8 activity.

1   **14. (original)** The process control system set forth in claim 13 wherein:

2           there is a plurality of types of actions; and

3           there is a plurality of the action tables, each action table of the plurality thereof  
4 containing action records for actions of one type of the plurality thereof.

1   **15. (previously presented)** The process control system set forth in claim 1 wherein:

2           the administrative query record further specifies future scheduling information  
3 that is associated with the administrative query;

4           the process control system further comprises  
5           a schedule accessible to the server that relates administrative queries to times for  
6           execution; and  
7           when executed, the portion of the program code accesses the schedule to  
8           determine a time for a next administrative query to be executed, executes the next  
9           administrative query at the determined time on the table of process records to obtain a  
10          result set of the process records that are of interest to the process control system, and  
11          employs the executed administrative query's future scheduling information to update the  
12          executed administrative query's time for execution in the schedule.

1   16. (previously presented) The process control system set forth in claim 15 further  
2   comprising:

3           a future scheduling information table in the database whose records specify the  
4           future scheduling information,  
5           the administrative query record for an administrative query specifying the future  
6           scheduling information by specifying a record in the schedule table.

1   17. (original) The process control system set forth in claim 1 wherein:

2           the administrative query record further specifies scope information that defines a  
3           subset of the process records; and

4           when executed, the portion of the program code executes the query associated  
5           with the administrative query on the subset of the process records that is defined by the  
6           scope information associated with the administrative query.

1   **18.** (original) The process control system set forth in claim 17 further comprising:  
2           an administrative query scope table in the database system whose records specify  
3   subsets of the process records;  
4   the administrative query record for an administrative query specifying the scope  
5   information by specifying a record in the administrative query scope table.

1   **19.** (original) The process control system set forth in claim 1 further comprising:  
2           an administrative query trend table wherein each record is associated with an  
3   administrative query and specifies an administrative action that is to be performed in  
4   response to a trend concerning the associated administrative query; and  
5   when executed, the portion of code determines from the administrative query trend  
6   record associated with the administrative query being executed whether a trend exists  
7   and when so, performs the specified administrative action.

1   **20.** (original) The process control system set forth in claim 1 further comprising:  
2           a query table in the database system whose records specify queries on the process  
3   record table; and  
4           an administrative activity type table in the database system whose records specify  
5   administrative activity types,  
6   the administrative query record for an administrative query specifying the query on the  
7   table of process records by specifying a record in the query table and specifying the  
8   administrative action by specifying a record in the administrative activity type table.

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